

Claims

1. Method for the production of binder-bound mineral wool products, in which

- mineral fibres are deposited on a production surface (13) to form a mineral wool web (12) and are pre-compacted, and
- the relative positions of the said mineral fibres are reoriented by mechanical action, for which purpose the web is guided on its large faces and at the same time forces, in particular upsetting forces, are introduced into the web in parallel with the large faces,
- the forces being introduced in introduction regions which are located next to one another transversely to the running direction in zones and in each case at a distance from one another in the running direction in longitudinal zones, and
- the introduction regions of adjacent longitudinal zones being arranged so as to be offset relative to one another,
- after which the binder is cured,

characterized

- in that the introduction regions are designed to be elongated in the running direction (14) of the mineral wool web (12), and
- in that the introduction regions of longitudinal zones located next to one another form overlap regions (27; 127).

2. Apparatus for the production of binder-bound mineral wool products,
with a production surface (13) for the depositing of mineral fibres as a mineral wool web (12),

- with a curing device (101) for the binder, and
- with a processing device, in particular upsetting device (17; 171, 172, 173), arranged upstream of the curing device (101), for reorienting the mineral fibres by mechanical action, the said processing device having driven rotary members (15/16, 18/19, 20/21, 22/23; 118/119, 120/121, 122/123) acting on the large faces of the mineral wool web (12),
- which rotary members have adjustable rotational speeds preferably increasingly lower in the production running direction (14), and
- which rotary members are arranged so as to be offset alternately to one another in the width direction of the mineral wool web (12),

characterized

- in that each rotary member (15/16, 18/19, 20/21, 22/23; 118/119, 120/121, 122/123) is designed to be elongated in the production running direction (14) and is designed to rotate about two axes of rotation, and
 - in that the axis of rotation, at the front in the production running direction (14), of each following rotary member (18/19, 20/21, 22/23; 120/121, 122/123) is arranged level with or, in the running direction (14) upstream of, the axis of rotation, at the rear in the running direction (14), of the rotary member (15/16, 18/19, 20/21; 118/119, 120/121) arranged upstream.
3. Mineral wool product with a fibre alignment which is reoriented in relation to the depositing of the fibres on the production belt, in which mineral wool

product the mineral fibres are arranged in a wavy manner on the large faces and/or in sections parallel to the large faces.

4. Composite mineral wool product comprising at least one insulating layer and at least one covering layer composed of upset mineral fibres, the said covering layer being provided with binder and being connected to the insulating layer by means of the binder during the curing of the binder, with pressure being applied at the same time,

characterized

in that the covering layer consists of a mineral wool product according to Claim 3 and is produced by the method according to Claim 1.

5. Composite mineral wool product comprising at least one insulating layer and at least one inner layer composed of upset mineral fibres, the said inner layer being provided with binder and being connected to the insulating layer by means of the binder during the curing of the binder, with pressure being applied at the same time,

characterized

in that the inner layer consists of a mineral wool product according to Claim 3 and is produced by the method according to Claim 1.

6. Use of a mineral wool product according to Claim 3 or of a mineral wool product produced according to Claim 1 as a plaster base layer of a plaster base board.
7. Use of a mineral wool product according to Claim 3 or of a mineral wool product produced according to Claim 1 as a covering layer or hard skin of a ceiling board.

8. Use of a mineral wool product according to Claim 3 or of a mineral wool product produced according to Claim 1 as a covering layer or hard skin of a facade board.
9. Use of a mineral wool product according to Claim 3 or of a mineral wool product produced according to Claim 1 as a covering layer or hard skin of a roof-insulating board.
10. Use of a mineral wool product according to Claim 3 or of a mineral wool product produced according to Claim 1 as a covering layer or hard skin of a gripping felt.
11. Use of a composite mineral wool product according to Claim 5 as a gripping felt or as a ceiling board.